Application No.: 10/718,826   **Docket No.: 200309756-1**

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS

1.   (Original)   A scheduling system, comprising:

an interface configured to receive input data and display output data; and

a device providing for generating said output data from said input data;

wherein said interface selectively provides for a queue-list view and a calendar view of said output data;

wherein said input data includes:

> a plurality of machine characteristics, comprising:
>
>> a machine maintenance characteristic;
>>
>> a machine capacity characteristic; and
>
> a plurality of job characteristics, comprising:
>
>> a job input characteristic;
>>
>> a job output characteristic; and
>>
>> a job schedule characteristic.

2.   (Original)   The system of claim 1, wherein said plurality of machine characteristics relate to a fabrication machine.

3.   (Original)   The system of claim 2, wherein said plurality of job characteristics include a design, and wherein said fabrication machine produces a physical output using said design.

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4.   (Original)   The system of claim 1, wherein said interface provides for toggling between said queue-list view and said calendar view.

5.   (Original)   The system of claim 1, wherein said machine capacity characteristic is a build tray capacity, wherein a first color is used on said interface to indicate when said build tray capacity is substantially empty and wherein a second color is used on said interface to indicate when said build tray is substantially full.

6.   (Original)   The system of claim 5, wherein said interface uses a third color to indicate at least one of: a tentative reservation; an unfinished design reservation; a high priority reservation; a low priority reservation; and a maintenance event.

7.   (Original)   The system of claim 1, wherein said input data includes an availability of an operator on at least one of: a weekend; a holiday; an extra shift; and an intra-shift break.

8.   (Original)   The system of claim 1, further comprising a scheduling heuristic and a plurality of jobs described by said plurality of job characteristics, said plurality of jobs including a first job and a second job, at least one of: (a) a shorter-than-average job and (b) a longer-than-average job, wherein said scheduling heuristic determines a job schedule, wherein said first job is a longer-than-average job and wherein said

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second job is at least one of: (c) longer in duration than said first job; and (d) a shorter-than average-job.

9.   (Original)   The system of claim 8, wherein said scheduling heuristic provides for at least one of:

  automatically scheduling said first job for an overnight period of time;

  automatically suggesting the merging said second job with said first job into a single build tray;

  automatically suggesting the filling in a block of unscheduled time with a low priority job;

  automatically adjusting a build start time to delay a required refill until an operator is scheduled to be available;

  automatically adjusting a run rate such that a required refill is delayed until at least one operator is present;

  automatically scheduling machine maintenance; and

  automatically scheduling a refilling of the machine.

10.   (Original)   The system of claim 1, wherein said interface provides for a drag-drop of a CAD file into an existing reservation.

11.   (Original)   The system of claim 1, wherein said interface automatically creates a warning when a job will not be completed before a deadline associated with said job.

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12.   (Original)   The system of claim 1, wherein a reservation is transmitted through said interface before a design associated with said reservation is complete.

13.   (Original)   The system of claim 1, wherein the interface is configured to capture at least one of: a deadline; a priority value; and a user affiliation.

14.   (Original)   The system of claim 1, wherein a present day job schedule can be viewed substantially simultaneously with a future day job schedule without transmitting an instruction to the interface after the present day job schedule is viewed.

15.   (Original)   The system of claim 1, wherein:
said plurality of machine characteristics further including:

> a plurality of machine maintenance characteristics, said plurality of machine maintenance characteristics comprising a maintenance frequency and a maintenance duration;
> a plurality of machine capacity characteristics, said plurality of machine capacity characteristics comprising a throughput rate, a build tray capacity, and a raw material capacity;

said plurality of job characteristics further including:

> a plurality of job input characteristics relating to a plurality of jobs, said plurality of job input characteristics comprising an input type, an input quantity, and a design;
> a plurality of job output characteristics, said plurality of job output characteristics comprising an output type and an output quantity;

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a plurality of job scheduling characteristics, said plurality of job scheduling

characteristics comprising a priority value, a deadline, a refill time, a start time, a

duration, and a completion time,

     wherein said input data includes a plurality of organization characteristics.

16.   (Original)   A system for scheduling jobs on a machine, comprising:

     a means for receiving a plurality of input attributes and to display a plurality of

output attributes in a calendar-view format;

        wherein said input attributes include a job characteristic, a machine

characteristic, and an organization characteristic;

        wherein said output attributes include a start time associated with a job identifier;

and

     a means for generating a schedule including said output attributes, wherein said

output attributes are generated from said input attributes.

17.   (Original)   The system of claim 16, further comprising a means to

automatically manufacture a plurality of physical outputs from a plurality of physical

inputs in accordance with said schedule.

18.   (Currently Amended)   The system of claim 16, further comprising:

a means for producing a physical output from a design and an inputted resource;

     a means for making said inputted resource accessible said-to said means for

producing said physical output;

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wherein said means for receiving said plurality of input attributes is further configured to:

transmit said design to said means for producing said physical output;

access availability attributes relating to an operator; and

set at least one of:

a deadline;

a priority value;

a scheduling rule; and

an advance reservation for an unfinished design.

19. (Original) A method for implementing a job scheduling application, comprising:

configuring a calendar-view interface for the display of job scheduling information;

adapting the calendar-view interface to automatically access information that can be displayed on a queue-list interface; and

programming a scheduling heuristic to facilitate an automated schedule modification performed on a job input.

20. (Original) The method of claim 19, further comprising:

defining a color-coded scheme for displaying at least one of:

a priority value for a job;

a utilization metric for a build on a machine;

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a job that will not be completed until after an associated deadline;

a job reservation that is not associated with a completed design;

a indicator, wherein said indicator is at least one of a resource

consumption indicator, a status indicator, and an operator intervention indicator;

and

a tentative job reservation.

21.   (Original)   The method of claim 19, further comprising:

instructing the job scheduling application to prohibiting the setting of at least one

of:

a priority value that exceeds the authorization of a particular user;

an interruption to a job that is currently in process;

a disruption to the maintenance schedule of a machine; and

an advance reservation that is outside a time frame of time that can be

scheduled.

22.   (Original)   The method of claim 19, wherein the job scheduling application is

hosted by an office workflow system.

23.   (Original)   The method of claim 19, wherein said job scheduling application is

in communication with one or more fabrication machines.

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24. (Original) A method of scheduling jobs on a fabrication machine, comprising:

viewing a current job schedule in the format of a calendar-view; and

scheduling a new job on the machine.

25. (Original) The method of claim 24, wherein the new job is associated with at least one of:

an incomplete design;

a priority value;

a deadline;

a reservation

an existing build with sufficient capacity to include the new job; and

an expected build time.

26. (Original) The method of claim 24, further comprising:

associating the new job with a build, wherein the build is associated with at least one of:

a refill period;

a plurality of jobs;

a build tray; and

a build tray capacity.

27. (Original) The method of claim 24, wherein no new builds are scheduled to begin during a period of operator absence.

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28.   (Original)   The method of claim 24, further comprising automatically adjusting a build start time to delay a required refill until an operator is scheduled to be available.

29.   (Original)   The method of claim 24, further comprising automatically adjusting a run rate such that a required refill is delayed until an operator is present.

30.   (Original)   The method of claim 24, wherein scheduling a new job on the machine includes:

receiving a plurality of job characteristics relating to the new job,

accessing a plurality of machine characteristics relating to the machine on which the new job is being scheduled; and

retrieving a plurality of organization characteristics relating to operator availability.